

1 **REDUCING MICRO-CONTROLLER ACCESS TIME TO DATA**
2 **STORED IN A REMOTE MEMORY IN A DISK DRIVE CONTROL**
3 **SYSTEM**

4 **ABSTRACT**

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6 A method and system for reducing micro-controller access time to information
7 stored in the remote memory via the buffer manager in a disk drive control system
8 comprising a micro-controller, a micro-controller cache system having a plurality of line-
9 cache segments grouped into at least one line-cache segment-group, and a buffer manager
10 communicating with the micro-controller cache system and a remote memory. The
11 method and system includes receiving in the micro-controller cache system a current
12 data-request from the micro-controller, providing the current requested data to the micro-
13 controller if the current requested data resides in a first line-cache segment of a first
14 segment-group, and automatically filling a second line-cache segment of the first
15 segment-group with data retrieved from the remote memory wherein the retrieved data is
16 sequential in the remote memory to the provided current requested data.